

# Effectiveness of planned teaching program among primary school teachers regarding awareness of learning disabilities in children

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## ABSTRACT

**Purpose:** To assess the awareness of learning disabilities of children before and after the planned teaching program among primary school teachers. **Research design:** A pre-experimental, nonrandomized, one group pretest and post-test design were used. **Materials and Methods:** The accessible populations were all teachers working in private primary schools at Montfort Matriculation School, Chennai. Purposive sample technique was used to select the 40 samples. The instrument consisted of two sections—Part-I: demographical variables, Part-II: awareness questionnaire on learning disabilities in children. The collected data were grouped and analyzed using descriptive statistics and inferential statistics and a paired *t*-test was used to determine the difference between pretest and post-test in the group. **Result:** The study indicates that the majority of the primary school teachers had inadequate awareness regarding learning disabilities and 10% had moderate level of awareness, whereas in the post-test, 7.5% had moderate level of awareness and 92.5% had adequate level of awareness. There was a significant association between awareness of learning disabilities among primary school teachers. **Conclusion:** The planned teaching program is an effective method in enhancing the awareness of primary school teachers regarding the care of awareness of learning disabilities.

**Keywords:** Awareness, learning disability, primary school teachers, structured teaching program

## Introduction

Education is an important aspect of human development and is widely regarded as the course of acquiring new knowledge, behaviors, skills, values, and understanding. Despite having normal IQ and a good educational environment, a child sometimes experiences difficulties in mastering some aspects of his/her educational task. This is termed as learning difficulty or learning disability.<sup>[1]</sup> Learning disability is considered one of the most complicated disorders of school-going children which has a

considerable effect on educational performance that is entirely different from expectations.<sup>[2]</sup> Learning disabilities are prevalent in all geographical regions however, it varies in different regions estimated from 3 to 12%.<sup>[3]</sup> An estimation from India states that more than five students in every normal-sized class do have learning disabilities.<sup>[4]</sup> According to American Journal of Psychiatry (2010) and other reported literature, 10 out of every 100 school children makes up to 3 million children over the world who are diagnosed with learning disabilities and prevalence of learning disorder is conservatively estimated to range between 4% and 10%.<sup>[5,6]</sup> Students with learning disabilities are often unrecognized by the teachers in the crammed full schools as the symptoms are not visible and always overlooked by teachers as well as parents.<sup>[3]</sup> Due to learning disabilities, school children perform below their merit which results in the child having a little self-esteem, sometimes causing

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significant stress to the parents. A child with learning disabilities tends to perform poorly causing development of low self-esteem in himself and due to that many times, the student himself/herself fails to succeed in their class gets disappointed and eventually quits school at an early age.<sup>[7]</sup> If the early signs of their problems are recognized and appropriate tutoring is provided, the risk of falling under depression, anxiety, and delinquency can be avoided in these children.<sup>[8,9]</sup> Dyslexia is the most common learning disability which has no cure but only requires specialized education.<sup>[8]</sup>

According to the National Centre for Learning Disability (Cortiella 2009) teachers are an essential link for children and parents who can provide the interventions among children with learning disorders and help them in overcoming their difficulties. Trained teachers can be helpful in identifying the learning disabilities in pupils and hence, it can be diagnosed as early as possible right from the nursery school. However, some other pupils develop stylish ways of covering up their learning disabilities issues and until the teen years of schooling it remains unidentified and life gets more complicated.<sup>[10,11]</sup> From the above information and reviews, the researchers felt that teachers need additional information regarding learning disabilities. It was felt that a structured teaching program for teachers on learning disabilities will help them to enhance their awareness.<sup>[12]</sup> Hence, there is a need to assess the effectiveness of a structured teaching program among primary school teachers on awareness regarding learning disabilities in school children. In this present study, we assess the effectiveness of planned teaching program on awareness of learning disabilities in children among primary school teachers at a selected school in Chennai.

## Methods

### Ethical consideration

Ethical permission was obtained from the Institutional Ethics Committee, Sri Ramachandra University (CSP/17/Jun/59/188). Written informed consent was obtained from primary school teachers. The study was conducted from June 2017 to May 2018.

### Research design

A pre-experimental, non-randomized, one group pretest, and posttest design were used. The independent variable in the study was planned teaching program and dependent variable was awareness of learning disabilities in children.

### Manipulation

A planned teaching program (PTP) on learning disabilities in children was the intervention given to the primary school teacher working in the Montfort Matriculation School. The planned teaching program comprised of the definition, causes, clinical manifestations, management, and complication of each condition. The planned teaching program was imparted using lecture cum discussion method for 45 min, for five teachers in a group of each day. Visual aids through LCD used were to deliver the contents. The planned teaching program context was developed by the researcher based on the literature. It was

subjected to validation by the department of speech and language hearing science experts.

The teaching sessions were planned and conducted among 40 teachers in groups. A total of 40 teachers who gave their willingness to participate were divided into eight groups comprising of five teachers in each group. A class on the same topic was scheduled once per day with five teachers per batch, considering the convenience and availability of teachers to attend the classes according to their duty schedules. The sessions were scheduled in the afternoon from 01:30–2:30 pm, each session was planned for 45 min that included 30 min lecture and 15 min discussion.

### Study setting

The study was conducted among primary school teachers in Montfort Matriculation school, Butt Road, Chennai. The Montfort school has 40 digital classrooms with more than 80 computer systems. Currently, the school has 2768 students from LKG to XII. The number of teachers working in these schools is 125; of which the primary school teachers' strength is 42. The distance between Sri Ramachandra University and Montfort school is 7.8 km (35 min). There were 42 teachers working in primary school who met the inclusion criteria; of them, two were on leave. Purposive sample technique was used to select the 40 samples.

### Inclusive criteria

Teachers who were willing to participate in this study and were available at the time of data collection.

### Exclusive criteria

Teachers who were on leave during the data collection period and/or who had undergone any special training on learning disabilities of children.

## Research Instrument

### The instrument consisted of three sections: - Part-I and Part -II

Part-I Demographic variables: It includes background variables of the primary school teachers including age, gender, educational qualification, marital status, year of experience, and sources of information of the primary school teachers.

Part-II Awareness questionnaire on learning disabilities in children-Self-structure questionnaire's constructed by the researcher, based on the literature review, was used to assess the awareness of learning disabilities in children among primary school teachers. It consisted of 30 multiple-choice questions. Regarding the questionnaire on awareness of learning disabilities, the possible score was 30. One mark was given for every correct answer and a score of zero was given for every wrong answer, the resulting scores were ranged as follows: 23–30, adequate awareness (76%–100%); 16–22, moderately adequate awareness (51%–75%); <1–15, inadequate awareness (<50%).

## Validity and reliability

A self-structured awareness questionnaire was developed by the investigator based on the review of the literature and expert guidance. The tool was validated by experts in the field of pediatric nursing. The reliability of the self-structured questionnaire tool was assessed using the split-half method and the reliability score was 0.74.

## Data collection procedure

Permission was obtained from the concerned authority, the Principal of Montfort schools. The main study was conducted at Montfort School in Chennai. The data collection period extended from 4.10.17 to 18.10.17. Purposive sampling technique was used to select the primary school teachers. The investigator initially established rapport with the study subjects and then explained the purpose of the study to each subject and got a signed copy of informed consent from them. Each subject was approached individually maintaining privacy. Strict confidentiality was maintained throughout the self-administered interview and ethical consideration strictly adhered, the language used was English. The study was conducted in two sections. The teaching program comprised of the definition, causes, clinical manifestations, management, and complication of each condition. The teaching program was imparted using lecture cum discussion method for 45 min, for five teachers in a group of each day. The visual aids used were LCD to deliver content. A total of 40 teachers who gave their willingness to participate were divided into eight groups comprising of five teachers in each group. A class on the same topic was scheduled once per day with five teachers per batch, considering the convenience and availability of teachers to attend the classes according to their duty schedules. The sessions were scheduled in the afternoon from 01:30–2:30 pm, Each session was planned for 45 min that included 30 min lecture and 15 min discussion.

## Data analysis

The collected data were grouped and analyzed using descriptive statistics (frequency, percentage, mean, and standard deviation) and inferential statistics paired *t* test was used to determine the difference between pretest and post-test in the group.

## Results

To assess the awareness of learning disabilities among primary school teachers, data were collected from 40 teachers working in a selected primary school which followed one group of pre and post-test design.

### Demographic variables of participants and association of awareness on learning disabilities of children of the primary school teachers

Teacher's age varied similarly among the different age group and all of them were females. Among them, 47.5% were teaching the children for more than 10 years and 90% of them were married.

With respect to qualification, 62.5% had completed D.Ed. and 37.5% had completed B.Ed. [Table 1]. The study showed a statistically significant association between awareness of learning disabilities among primary school teachers with the year of experience and marital status.

### Awareness score of primary school teachers regarding learning disabilities on the pretest and post-test

A majority (90%) of the primary school teachers had inadequate awareness regarding learning disabilities, and 10% had a moderate level of awareness, whereas in the post-test, 7.5% had a moderate level of awareness and 92.5% had an adequate level of awareness [Table 2]. The pretest means a score of awareness of learning disabilities was 11.05 and post-test means score was 14.2, which was significantly improved after the post-test.

## Discussion

The results of this present study indicate a significant difference in awareness scores on learning disabilities of children before and after the planned teaching among primary school teachers. There was a highly significant difference in the mean scores of awareness of learning disabilities between pretest ( $M = 11.05$ ) and post-test ( $M = 25.27$ ) with the mean difference of 14.2 ( $t$  value = 30.07;  $P < .001$ ) the planned teaching was effective in increasing the awareness score of subject regarding learning disabilities. The findings were consistent with the study findings conducted by Shari and Narasimha (2010) to assess the effectiveness of structured teaching program on the level of knowledge of teacher trainees towards learning disabilities at NIMHANS. Before the intervention of the teaching program, we saw that the majority of the primary school teachers had inadequate awareness regarding learning disabilities similar to an earlier study.<sup>[13-15]</sup>

There was a significant association between awareness of learning disabilities among primary school teachers with their year of experience and marital status. In this study, we can conjecture that teacher grows in experience and observes numerous children from different backgrounds and tends to acquire more knowledge regarding behavior and attitude of kids.<sup>[16,17]</sup> Similar findings were observed in the study conducted by Summers *et al* (2001) which indicated that elder teacher and those who had more years of experience had more knowledge scores than others.<sup>[18]</sup> The present study adopted the concepts of Ludwig Von Bertalanffy (1968) which guided the investigator in planning the methodology, conduction of the study, and validation of outcome.<sup>[19]</sup> The conceptual framework suggested that from the present study a change in awareness is obtained by planned teaching programs on learning disabilities. This can be assessed by means of post-test awareness scores which can be adequate, moderately adequate, and inadequate that proves the effectiveness of planned teaching programs.

**Table 1: Demographic variables of participants and the association of awareness on learning disabilities**

Background variables	n	Pretest				Post-test			
		M	SD	t or F- value	P	M	SD	t or F- value	P
Age in year									
31-35	10	10.5	2.46	1.845	0.157	25.5	2.42	0.671*	0.609
36-40	11	10.4	1.5			25.4	1.8		
41-45	15	12	1.96			25.4	1.88		
above 45	4	10.8	2.06			24	1.63		
Total	40	11.1	2.06			25.3	1.96		
Years of experience									
less than 5	10	10.5	2.46	2.136	0.132	25.5	2.42	0.142	0.868
5-10	11	10.4	1.5			25.4	1.8		
above 10	19	11.7	2			25.1	1.88		
Total	40	11.1	2.06			25.3	1.96		
Marital status									
Single	1	12	0	0.412	0.745	20	0	4.515**	0.009
Married	36	11.1	2.14			25.5	1.75		
Divorced	1	9	0			26	0		
Widowed	2	11.5	0.71			23	1.41		
Total	40	11.1	2.06			25.3	1.96		
Education qualification									
D.Ed.	25	10.6	2.06	1.659	0.105	25.2	2.19	0.144	0.886
B.Ed.	15	11.7	1.94			25.3	1.59		
M.Ed.									
Source Of Information									
Media	17	10.5	2.38	1.555	0.128	25.5	2.07	0.537	0.594
Friends/family	23	11.5	1.73			25.1	1.91		

\*\*P&lt;0.001, \*P&lt;0.01

**Table 2: Awareness score of primary school teachers regarding learning disabilities on the pretest and posttest**

Level of awareness	Pretest		Post-test		Variables (group)	Pretest		posttest (Post-test Pretest)		Difference		Paired t	P
	n	Percentage	n	Percentage		M	SD	M	SD	M	SD		
Adequate awareness (76% to 100%)	-	-	37	92.5	Awareness	11.05	2.06	25.27	1.961	14.2	2.99	30.076***	0
Moderate awareness (50% to 75%)	4	10	3	7.5									
Inadequate awareness (0% to 49%)	36	90	-	-									

P&lt;0.001\*\*\*

To grow as a matured and responsible citizen, education is must. Though children acquire knowledge through education few of them experience difficulties in some aspects of educational tasks and suffer through learning disability.<sup>[20,21]</sup> This causes several negative implications on the child's development. However, such symptoms of kids are identified at the preschool level and the interventions through teachers can have a positive outcome that can prevent and manage the emotional and psychosocial problems of young children. Therefore, in this study we evaluated the effectiveness of planned teaching program on awareness of learning disabilities among primary school teachers at a selected school in Chennai.

## Conclusion

In the present study, the backflow of information regarding the adequate, moderately adequate, and inadequate changes in the

level of awareness in primary school teachers was measured through a structured questionnaire in the post-test. The study was limited to the selected private primary schools and all of them were females which may have affected the results.

There is an urgency to sensitize teachers as well as parents using planned teaching program to make them aware of the myths and misconceptions of learning disabilities. Since teachers are the ones who initial encounter educational difficulties of kids, their acquaintance is of extreme importance as it involves the classification of learning disabilities at the initial stages and helps to avoid their exile from normal life.

## Declaration of patient consent

The authors certify that they have obtained all appropriate patient consent forms. In the form the patient(s) has/have

given his/her/their consent for his/her/their images and other clinical information to be reported in the journal. The patients understand that their names and initials will not be published and due efforts will be made to conceal their identity, but anonymity cannot be guaranteed.

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Nil.

## Conflicts of interest

There are no conflicts of interest.

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